DOCUMENT RESUME

ED 347 835 FL 020 499

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TITLE Innovations in Foreign Language Education.
SPONS AGENCY Department of Education, Washington, DC.
PUB DATE 10 Jun 92
CONTRACT 43-3J47-1-00700
NOTE 29p.
PUB TYPE Reports - Descriptive (141) -- Information Analyses (070)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Competency Based Education; Curriculum Development; *Educational Change; *Educational Innovation; *Educational Technology; Elementary Secondary Education; *FLES; Higher Education; International Studies; Language Proficiency; Program Development; *Second Language Instruction; Second Languages; Technological Advancement

ABSTRACT

The report details developments in three areas of United States foreign language instruction, each reflecting major changes in the way foreign language educators think about their role and the way in which they structure the learning process for students. The first section describes the adoption of a voluntary national standard for testing language proficiency, including 10 years of development in proficiency-based instruction and the current use of oral proficiency interviews in entrance examinations, for awarding college credit, and selecting teachers for employment. The second section addresses the recognition of the importance of foreign language competence at all educational levels, but especially in the elementary schools. It outlines the emergence of content-based language instruction and describes various model programs that illustrate how elementary schools and classrooms are integrating foreign language instruction into the overall curriculum. Section 3 discusses the advances in educational technology (computers, video and audio, CD-ROM, compact disks, satellites, cable, and telephones) and how they are making foreign language education more accessible and productive. Each section contains a substantial list of references. (MSE)

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Submitted to:

U.S. Department of Education
Contract Number 43-3J47-1-00700

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June 10, 1992

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INNOVATIONS IN FOREIGN LANGUAGE EDUCATION

Introduction

Significant changes in the role of foreign language instruction, learning and testing are taking place in our schools today. These innovations have emerged from a changing rationale for foreign language in the school curricula--a rationale that incorporates geopolitical, domestic, and individual motivations for Americans to learn other languages. The anxieties about the supremacy of the United States, spurred by the launching of Sputnik in the late 1950s (which had a definite, although short-lived impact on foreign language instruction in the 1960s), has been replaced by concern about our nation's ability to compete in a global economy. This shift has resulted in a renewed emphasis on foreign language competence. Specifically, during the 1980s, many educators began to examine foreign language curricula in light of the purposes to which learners will put their skills.

Of the many developments and innovations currently taking place in foreign language teaching and learning, three have been singled out for review in this report. Each of these innovations reflects major changes in the way foreign language educators think about their role and the way in which they structure the learning process for their students. Each holds out the promise that the renewed emphasis in foreign language instruction can indeed be sustained, even in the crunch of limited economic resources, because each innovation can be seen as an integral part of accomplishing the overall educational objectives of the country. Finally, each innovation is well on its way toward adoption by the foreign language education community.

One of the most exciting and significant developments in foreign language teaching and learning is occurring with the adoption of a voluntary national standard for testing language proficiency. Section I of this report describes the establishment of what is now a ten-year development in proficiency-based instruction, and describes how oral proficiency interviews are being used in entrance examinations, to award college credit, and to select teachers for employment.

The uncertainties of global relationships and the changing demographics in the United States have caused leaders in education and business to recognize the importance of foreign language competence at all levels of education--especially at the elementary school level. Section II of this report provides an international context for what is quickly becoming a major trend in foreign language education. A number of states have led the way in responding to the challenge to begin foreign language instruction in the early grades. These new programs of the 1990s are drawing upon lessons learned in the 1960s and on the development of an important new curricular approach--content-based or content-related language instruction. Various model programs are described that illustrate how elementary schools and classrooms are integrating foreign language instruction into the overall curriculum.

Finally, one of the most pervasive innovations in foreign language teaching and learning has come about because of the tremendous advances in educational technologies affecting all fields of study. Section III discusses these technological developments and how advances in computers, video and audio technology, CD-ROM, compact disks, satellites, cable and telephones are making foreign language teaching and learning more accessible and productive for the learner.

I. Standards of Proficiency

Background

In 1982, the American Council on the Teaching of Foreign Languages (ACTFL) published the first edition of a scale of language proficiency called the ACTFL Proficiency Guidelines. The Guidelines were adapted from the federal government's scale, which was originally developed by the Foreign Service Institute to rate the language proficiency of American diplomats. The development of the Guidelines was a joint effort of language specialists in both foreign language teaching and the government. The Guidelines consist of a series of paragraph length descriptions of different levels of proficiency in speaking, listening, reading, and writing. Each level is defined in terms of real life communication activities that a learner can perform in a foreign language. Each level is related to the performance of authentic communication tasks. Thus, a rating on the Guidelines provides a measurement of real world competency, which differs from the competency that has traditionally been associated with success in a foreign language course.

Setting Standards of Competency

The Guidelines were received enthusiastically by foreign language teachers in schools and universities. Long aware of the Government's scale of language proficiency, teachers now also had a means of judging the proficiency of their students. In this respect, foreign language teachers were the first group of educators to develop a scale of increasing real life competencies in their subject. Teachers in other fields have subsequently developed scales, usually in response to the nation-wide trend toward providing educational standards and defining incremental levels of competence. Other organizations who have developed similar scales include the National Council of Teachers of English (1987), the Bradley Commission on History in Schools (1988), the National Council of Teachers of Mathematics (1989), and the National Academy of Sciences (in progress). However, it is important to remember that the scales developed by foreign language teachers were created ten years ago. Thus, there has been adequate time for them to have an effect on foreign language teaching, and this has proven to be the case.

Proficiency-based Instruction

Since the development of the ACTFL Guidelines ten years ago, a trend known as the "proficiency movement" has emerged. The proficiency movement has had an important effect on teaching methods and on the foreign language curriculum. Classroom teachers began to incorporate the real life skills associated with each proficiency level into their teaching. For example, learners who have proficiency at the Intermediate level are able

to handle simple communicative tasks associated with survival in a foreign country. Thus, to test these skills, teachers create situations for students to role play with each other. Common situations might involve ordering a meal in a restaurant; querying the desk clerk at a hotel about the availability of rooms, the rate, and the accouterments available in the room and in the entire hotel; asking for a particular kind of article at a store and then interacting with a sales clerk when he or she brings you something that is not exactly what you are looking for; or changing a plane reservation at a travel agency.

Such activities represent a focus on the acquisition of communication skills, as opposed to the traditional emphasis on the learning of grammatical forms and rules. This has lead to a new emphasis on the personal use of language in foreign language classes, where the student describes his or her needs, wants, likes, dislikes, possessions, goals, activities, etc. Such activities compare favorably with authentic communicative situations, where the speaker has information to convey to the listener. Previously, the student used language (information) provided by the text or the teacher. The language was selected solely to illustrate and drill a structure being learned.

Similarly, in the teaching of listening, the teacher was once the principle model for the students, supplemented by audio tapes available in the language laboratory. Currently, authentic materials designed for native speakers of the language are integrated into the classroom. These authentic listening materials include audio tape recordings of a wide variety of radio programs (such as local, national, and international news programs, weather, talk shows, interviews), recordings of public announcements, and telephone conversations.

Video tapes have also emerged in the foreign language classroom. They have the added advantage of the visual component, through which the students can see how people in another culture look, dress, gesture, and use facial expressions. Video tapes also provide students with a window to the foreign country: its buildings, streets, methods of transportation, furniture, etc. Through using these audio and video recordings, it is indeed possible to develop real life listening skills. Because teachers are asking publishers for these authentic materials, publishers are providing them as accompanying materials to support their proficiency oriented textbooks.

In the area of reading materials, the textbook author once produced all the stimuli that the student encountered. Again, such texts consisted of artificial language illustrating only how particular structures and words are used. There was little concern for the naturalness of the language. Indeed, the well known phrase "My aunt's pen is on the bureau" is sometimes used in jest to represent how the language presented to the student was completely artificial, and unlike the kind of language encountered when travelling in a foreign country. Once the proficiency movement began, foreign language teachers began to bring different kinds of authentic reading materials to the classroom. Lower level materials include printed schedules for a train or bus, or for radio or television. These

materials employ high frequency vocabulary such as numbers and expressions of time, and contain titles consisting of a word or phrase. Low level reading texts also include magazine advertisements supported by a picture.

Because foreign language teachers have requested authentic reading materials, publishers have begun to include such materials in textbooks. In some textbooks, all reading passages are authentic. Such textbooks include Reading Real Russian, Reading Authentic Czech, and Reading Authentic Polish. Some of these textbooks classify on the ACTFL reading scale the difficulty of each reading passage presented and use the classification to order the presentation of the passages in the text.

The Oral Proficiency Interview

The ACTFL Proficiency Guidelines and the Government's descriptions of proficiency levels have traditionally been associated with a face-to-face speaking test called the Oral Proficiency Interview (OPI). An OPI is used to assign a level of proficiency on the speaking portion of the scale. The OPI consists of a short conversation between two people, the interviewer and the language learner. The interviewer follows a specific format in conducting the interview, although the conversation is adjusted according to the learner's interests, experiences, background, and ability to use the language. The goal of the interviewer is to engage the learner in a conversation on a variety of topics, while asking questions that require different levels of linguistic ability to answer. During the interview, the learner demonstrates his or her ability to speak on a variety of topics, to handle speaking tasks that involve different degrees of formality or informality, and to use correct and appropriate language in the process. At the end of the interview, the oral proficiency rating is assigned.

To conduct an oral proficiency interview well requires a considerable amount of training. Training involves an intensive, one week course in the theory and practice of the Guidelines and the OPI. ACTFL then certifies the competency of interviewers who, in addition, devote several weeks to conducting tape recorded interviews with learners at various proficiency levels. The best of these interviews (25 in number) are then sent to ACTFL which evaluates a sample of them to determine whether or not the interviewer should be certified by the professional association. ACTFL began to offer interviewer training in 1982 and in the interim has trained some 4,000 teachers in the process. About 20% have become certified interviewers.

The OPI and the ACTFL Guidelines are used as a means of demonstrating proficiency in a number of foreign language programs. Some college foreign language departments at the universities of Florida, Colorado, Michigan, Northern Colorado, Wisconsin and others, administer an OPI to students upon their completion of the undergraduate major. In most cases, no specific minimum score is required. The results are merely used by the

department as a record of the oral proficiency of its graduates. In a few cases however, such as with Spanish majors at the University of Northern Colorado, a specific minimum proficiency level is required for fulfillment of the requirements of the major. In other cases, such as the Russian Department at Portland State University and the Spanish Department at Syracuse University, the OPI is required students applying for admission to the graduate program. (Grosse, Alley, & Uber, 1992)

Some institutions require an OPI rating for admission into the teacher education program and others administer it upon completion of the program. Examples are Weber State College and the University of Wisconsin at Madison. Either way, a minimum proficiency rating is set by the institution, and the student must meet that level to be admitted to the program or to receive the college's recommendation for a teaching credential.

Another popular use of the OPI is for the certification and selection of teachers. A number of school districts, such as Washington, DC, now require that all finalists for a position take an OPI. The proficiency rating is considered when making the final selection and some districts have a minimum level of proficiency required of all new foreign language teachers. In Utah, teachers certified in another subject present an OPI score to the Utah Department of Education if they wish to add an endorsement in a given language to their teaching credential. (Grosse & Benseler, 1991)

Another growing use of the ACTFL Guidelines lies in the concept of "credit for proficiency" (Lange, 1990). The University of Minnesota was the first to implement this across all languages taught at the institution. At Minnesota, all students must attain specific levels of proficiency in listening, speaking, reading, and writing in order to satisfy the foreign language requirement of the College of Arts and Sciences. The university encourages students to study a less commonly taught language (all languages other than Spanish, French, German, Italian, or Russian) by requiring a lower level of proficiency in one of these languages in order to satisfy the requirement. Tests in each of the four skills have been developed for the twenty some languages offered.

Because the OPI may not always be administered well, a number of simpler derivative tests have been developed. The University of Minnesota, for example uses a five minute tape recorded speaking test, on which the student is asked a series of questions that can be used to determine whether he or she satisfies the proficiency requirement. The federal government has developed longer tape recorded tests in many languages for testing government employees in locations where a trained interviewer is not available (Lowe and Clifford, 1980).

The Simulated Oral Proficiency Interview

The Center for Applied Linguistics has developed a tape recorded test available in eight languages called the Simulated Oral Proficiency Interview (SOPI). Through a series of research studies, they have shown that a rating obtained on a SOPI is comparable to what a learner would obtain on a face-to-face OPI (Stansfield, 1989). Currently, the SOPI is used to determine the language proficiency of students completing the intensive Chinese program at Cornell, and to place students from different universities in the University of Tennessee study abroad program in Brazil (Milleret et al., 1991).

The SOPI includes several features that make it useful in situations where important decisions must be made based on the test score or where a large number of test takers is anticipated. Since all test takers receive the same test, it is relatively easy to rate. Raters can be trained in one to two days. In 1991, the State of Texas began using SOPI tests in Spanish and French for certifying foreign language and bilingual education teachers. The Spanish test is taken by about 1,000 persons per year. The Center for Applied Linguistics has also developed a program to train raters in Texas in less than two days. During the first year of operation, 120 raters were trained to score the Spanish test.

The above discussion illustrates the widespread effect of the establishment of voluntary national standards on teaching, curriculum and testing. Clearly, the proficiency movement has had an impact on foreign language education and will continue to do so.

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II. Foreign Language Education in Elementary Schools

An International Perspective

In the 1990s there is much to remind us that we live in a rapidly shifting, changing world. Old assumptions have dropped away as quickly and as unexpectedly as the Berlin Wall and the Iron Curtain, and Americans feel the impact of events around the world. The need and desire have never been greater to communicate effectively with near and distant neighbors. Throughout eastern Europe citizens are enrolling in classes for new languages as a means of gaining access to the wider world that has opened to them. As the "new" Europe of 1992 moves toward growing interdependence and freedom of movement and exchange, communication in more than one language has become a priority for every citizen. Learning to communicate in a foreign language might be regarded as a symbol of the breaking down of boundaries, of moving into closer and more cooperative relationships in a shrinking, interconnected world.

For most European countries--indeed, most countries in the world--the priority of communicating in a foreign language is addressed in the elementary school. Germany, for example, which has traditionally begun foreign language instruction for all students in the fifth grade, is now recommending that the first foreign language instruction be offered in grade three. Austria, also at the heart of Europe, is experimenting with providing two new languages in the elementary school, beginning the first in grade one and the second in grade three. A significant Council of Europe workshop in May of 1992 brought together representatives of 22 European nations to build even stronger and more effective programs of foreign language instruction at the primary school level. Virtually every country in Europe has a policy or a plan for ensuring that all children have the opportunity to learn at least one foreign language, and are encouraging many to learn a second.

American children have not traditionally enjoyed the same opportunities for language study as their European counterparts. Despite a brief surge of interest in the 1960s for languages at the elementary school level, most language instruction in American schools has been reserved for older adolescents. Even in high schools it has often been regarded as most appropriate for especially talented or college bound students. The emerging realities and uncertainties of global relationships, however, together with changing demographics in the United States, have caused leaders in education and business to recognize the importance of foreign language competence and to call for greater emphasis on foreign language instruction at all levels of education--especially for the introduction of language programs in the elementary school.

The opportunity to learn another language early helps children develop an awareness that there is more than one way of addressing and naming the world around them. It can also encourage their curiosity about, and openness, to the wide variety of options the world

offers. And, of course, an early beginning for language learning makes possible the long sequence of study that leads to the development of real and usable language skills. Early opportunity to learn a foreign language also opens the language door to more children. For a variety of reasons, when language instruction begins later there can be a tendency in some schools to withhold foreign language experiences from children who have not had success in traditional school subjects. It also happens that older learners select themselves out of languages because they doubt they can be successful, or that languages have any relevance for them. When languages are introduced early enough, however, no one questions the ability of every child to learn, least of all the children themselves. Learning another language becomes an accepted part of school and of childhood, and all children can gain access to the wider perspective and wider possibilities only another language can offer.

Responding to the Call for Elementary School Foreign Languages

A number of states have led the way in responding to the challenge of earlier language learning. Several have mandated foreign languages for school children before the secondary school level, including North Carolina, New York, Louisiana (Met and Rhodes, 1990), Wisconsin, Michigan, Arizona, and Texas (Curtain in press). Strong leadership and state funding support have encouraged the development of numerous new programs in Iowa. The state of Georgia now requires that all foreign language teachers be prepared to work with students in both elementary and secondary schools, and state funding supports the development of model language programs in thirteen elementary school settings. North Carolina teachers and the Center for Applied Linguistics, in a grant project for FIPSE (Fund for Improvement of Post Secondary Education), developed guidelines and curriculum for teacher preparation for the elementary school level. Language curriculum development projects are under way throughout the country, partly in response to federal funding opportunities.

The foreign language profession has also responded to the new priority of languages for children. The American Council on the Teaching of Foreign Languages (ACTFL) identified the elementary school as one of its major issues at a 1989 priorities conference. In February 1992 ACTFL, in cooperation with the National Foreign Language Center, launched an initiative for the support and development of languages at this level. The American Association of Teachers of French (AATF) and the American Association of Teachers of Spanish and Portuguese (AATSP) have each formed a FLES Commission that actively supports and represents the teaching of languages in the elementary school. The American Association of Teachers of German, with funding from the German government, has established the Kinder lernen Deutsch project, (Children learning German), to develop materials, encourage program development and provide teacher preparation for the elementary school. The National Network for Early Language Learning (NNELL) was established in 1987 as an informal network and in 1991 as a formal organization, uniting

teachers and others interested individuals with a shared interest in languages for children. FLES News, newsletter for NNELL with a circulation of over 5,000 copies, is a national publication devoted exclusively to the area of elementary school language learning.

This ferment of activity represents the second wave of enthusiasm for languages at the elementary school level. The 1960s saw a surge of interest in languages for children as part of the widespread reexamination of American education that took place after the Soviet launch of Sputnik. Many programs were begun in haste, without adequate planning or resources, and most did not survive beyond the end of the decade. The new programs of the 1990s draw on the lessons learned in the 1960s and on the development of an important new curricular approach--*content-based* or *content-related language instruction.*

Background for Content-Based Foreign Language Instruction

This new directions in elementary school foreign language programs can trace its roots to two developments of the late 1960s--French immersion programs in Canada and English-language programs for Hispanic and Asian students in the United States. Children in immersion programs, monolingual speakers of English, were learning the entire curriculum of the elementary school as delivered in French, a foreign language. Their French language skills developed quickly to a very high level, and their mastery of curriculum content equaled or surpassed that of their peers taught only in English. (Met 1989) At the same time, U. S. teachers of non-English speakers were using new strategies to prepare children to use English effectively to meet the communication needs of the classroom and the curriculum. Considerable research has been directed toward both immersion programs, now widespread in the United States as well as Canada, and programs for the ever-growing population of non-English speakers. One of the clear implications of that research is that there is special value to the language learner in using the target language as a tool for acquiring information and skills relating to other subject areas. (Genesee 1987) Dulay, Burt, and Krashen (1982) suggest, for example, that the addition of even one area of subject content taught in the target language can have a significant impact on the rate and quality of second language acquisition (p. 16). Content-based language instruction is being recommended with increasing frequency for traditional language programs at all levels.

Immersion Programs

The purest example of content-based instruction is immersion, offered in 26 states, at least 55 school districts, and in nine languages during the 1991-92 school year. In full immersion programs, such as the original (1971) U.S. program in Culver City, California, children receive all instruction in the foreign language beginning in kindergarten or grade one, and no English is used in the classroom until English reading instruction is introduced

in grade two or three. Additional English instruction is added gradually, usually up to a maximum of 40% per day in grade six. New immersion programs are being launched every year, but several of the programs with the longest history include Montgomery County, Maryland from 1974 (French and Spanish), Milwaukee, Wisconsin from 1977 (German, French, Spanish), and San Diego, California from 1977 (Spanish).

In partial immersion programs, fifty per cent of the instructional day takes place in the foreign language, and the other half of the day is taught in English, beginning in kindergarten or grade one and continuing through grade five or six. One of the largest and most carefully researched of these programs is located in Cincinnati, Ohio, where children have been learning French and Spanish in partial immersion classrooms since 1974. Researchers (Genesee, et al, 1986) noted that kindergarten children in immersion programs progressed just as well in English as did children in all-English programs. Significantly, socioeconomically disadvantaged children benefited just as much from the foreign language instruction as did pupils from middle class homes. Similar results have been obtained in the intensive study of another successful partial immersion program, Key Elementary School, Arlington, Virginia. (Rhodes and Barfield, 1991)

Two-way immersion is the newest and perhaps the most promising version of the immersion model to take hold in American schools. Initially developed as a variant of bilingual education, these programs bring native speakers of two languages together to be educated in both languages. It is common to find instruction being conducted half the day in one language and half the day in the other, as is the case in partial immersion. The difference, however, is that in each half of the day one of the groups is receiving instruction in their native language and one of the groups is learning in their new language. Such a model takes advantage of the fact that children learn new languages most naturally and effectively when they have peers --classmates and playmates-- as language models. (Dulay, Burt, Krashen, p. 30-31)

In 1992 the Center for Applied Linguistics identified 124 schools in 69 districts offering two-way immersion programs in thirteen states. Languages offered include Spanish, Portuguese, Cantonese, and Haitian Creole. The rapid development of these programs has been due in part to the support of federal funding through Title VII. The Oyster Elementary School in the District of Columbia has been a leader in this development, as have several school districts in California--San Diego was among the earliest to offer two-way immersion programs.

Content-Based Instruction and Other Program Models

The use of subject content as an organizing principle for language instruction has extended well beyond the immersion classroom, to influence foreign language teaching in every program model and at every level. In some cases this has meant teaching a selected

portion of the general curriculum in the target language, in addition to or instead of regular language instruction. Cincinnati Public Schools, for example, uses Chinese, Japanese, Arabic, or Russian to teach music, art, and physical education in one of its foreign language magnet schools, in addition to regular foreign language classes. Portions of the mathematics, science, and social studies curriculum are taught in Spanish in Jefferson School, Minneapolis, Minnesota. Use of the target language to teach general curriculum content in this way enhances the effectiveness of language instruction in two ways. First, it increases the actual amount of time the learner spends in meaningful use of the target language, thus increasing the rate and amount of language learning that can take place. Second, students who are actively engaged with learning important information, using the new language as a tool, are experiencing the target language with an intensity that makes it both more meaningful and more memorable.

FLES Programs

The influence of subject content instruction is also evident in the most common elementary school language model among new and existing programs: FLES (Foreign Languages in the Elementary School). Programs developed on this model usually designate regular segments of the classroom day for foreign language instruction, from as little as 15 minutes to as much as 60 minutes per day. Instruction may occur as often as daily (considered by many to be the most desirable) to as infrequently as once a week. FLES programs may begin with any grade in the elementary school, and they traditionally incorporate both cultural and language objectives in a curriculum that is sequenced and continuous from grade to grade.

While instruction in immersion programs is clearly content based, with outcomes drawn from the general curriculum at the grade level of instruction, FLES programs working with subject content tend to be content related. That is, they draw from the general curriculum to reinforce and sometimes reenter important concepts, some of which may have been taught in earlier grade levels. The relationship to the elementary school curriculum is clear and direct, but the foreign language classroom does not take responsibility for initial instruction nor for 1:1 correlation with grade level objectives. The fact that language classes can be shown to reinforce the learning in the rest of the school day makes it easier for many school districts to justify the time devoted to language instruction in an already crowded schedule. In fact, no study has ever demonstrated an achievement loss in any school subject as the result of time taken out for foreign language instruction, and a number of researchers have found student achievement gains in academic areas for children learning languages. (see Donoghue, Garfinkel, Rafferty)

Elementary schools in Ferndale, Michigan, have a well developed curriculum for French, German, and Spanish that reinforces the general curriculum in grades one through six. Many of the new programs in North Carolina have been developed with close cooperation between classroom teachers and foreign language specialists, and the same pattern is found

in curriculum development for Georgia model programs.. The Wellington School in Columbus, Ohio, ties French curriculum closely to the goals of the general classroom. A number of FLES programs have found geography and mathematics to be particularly well suited to reinforcement and extension in the foreign language curriculum.

FLEX programs

Many school districts have chosen to develop FLEX programs (Foreign Language Experience or Exploration) for their elementary schools, and even here the influence of content-related instruction can be seen. FLEX programs are short-term experiences with one or more languages--four weeks to several months in duration--in which children sample the foreign language and culture. The more intensive of these experiences use the target language for instruction most of the time; the less intensive programs are taught largely in English and resemble social studies classes in their emphasis on culture and on learning about language. In neither case is it realistic to expect measurable, usable language proficiency as an outcome of the program.

Two successful FLEX programs have developed their curricula to reinforce the goals of the social studies program at each grade level. In Moorhead, Minnesota, for example, fourth graders learn French for six weeks, with an emphasis on the Voyageur, because this is closely related to the Minnesota history emphasis in fourth-grade social studies. Fifth graders learn Spanish, as a reinforcement to the study of Spanish explorers in the general curriculum, and sixth graders learn German and relate it to the immigrant history that has affected both the nation and Minnesota. Iowa City, Iowa, has developed a similar program, in which children spend one year in each language, with curriculum at each grade level related closely to the general curriculum.

Challenges Faced by Elementary School Foreign Language Programs

As elementary school language programs continue to be introduced and to thrive, and with the further development of content based and content related language instruction, increasing numbers of well-prepared language learners will move from elementary school FLES and immersion programs into middle schools and high schools. The challenge of the next decade will be articulation: to provide meaningful programs for these students that will allow them to continue their natural and successful language development. Learners will enter the middle or secondary school with well developed ability to communicate about variety of topics of relevance and interest to their school lives, but with little experience in grammatical analysis. Most secondary school language teachers have not encountered this type of learner before, and close communication and cooperation within the educational community are required to ensure that expectations and curriculum at the secondary school level are appropriate for the elementary school graduate. One common approach of the 1960s and 1970s--starting students over from the beginning to provide a

grammar-based foundation for "real" language study--was an important factor in the failure of many elementary school programs.

The transition from elementary to secondary school will be more successful as programs meet another major challenge, that of improved assessment procedures. Traditional paper-and-pencil measures of foreign language skills do not capture the abilities to communicate, to create with and think with language, and to use language as a tool for learning that represent the real achievements of content-based and content-related FLES and immersion programs. Middle and secondary school teachers require reliable information about learners who have graduated from elementary school programs, in order to prepare appropriate learning experiences for them.

Other challenges abound: new programs find that not enough well-prepared teachers are available to staff their classrooms. Language teachers for the new FLES and immersion programs require a high level of language skill, as well as thorough understanding of elementary school curriculum and students. Few colleges and universities have established programs to prepare teachers for this level, and teachers prepared for secondary schools or without specific language teacher preparation require extensive in-service work before they can be successful in an elementary school language classroom. The task of the language teacher is made more challenging by the fact that in many cases, and for many languages, teaching materials are either unavailable or not yet adapted to a content-based/ content-related approach.

Public support has never been greater in the United States for foreign language instruction at the elementary school level. The foreign language profession has developed a cadre of well prepared and enthusiastic advocates for elementary school foreign languages and a growing number of model programs in every program category. The movement toward a close relationship between foreign language instruction and the content of the general curriculum holds promise for a secure place for languages in the school curriculum and the school day, even in the face of strained economic conditions. There is every reason to be hopeful that the current wave of interest in elementary school foreign languages will help carry the nation to a new period of communication with neighbors near and far.

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III. Technological Innovations in Foreign Language Education

Overview -- Technology in Education

In recent years, technology has become a vital part of our educational system. In all areas of education, overhead projectors, televisions, radios, cassette players, video and audio tapes, and computers, have become common tools in the classroom or lab. As technology advances, so do the possibilities for its use in education. Each year, new educational technologies come into the schools offering new ways to teach and learn. At the core of these new technologies is the computer.

In foreign language education, where technology is not a stranger, the computer has emerged as the strong-willed newcomer which makes its presence felt throughout the field. While audio and video technologies have made their mark in the foreign language classroom, the computer is now becoming a base to run interactive audio and video programs, giving a new face to familiar media. Satellite broadcasts bring current target language programs into the classroom and long distance education offers students the possibility to learn languages not offered in their own schools. Students are able to communicate with native speakers of other languages via long distance networks, while local area networks provide the opportunity for cooperative writing and teacher observation.

With the vast growth of the use of educational technology many states and school districts are adopting standards, policies, and plans for utilizing and implementing technology in the classroom. Many states, such as Florida, South Carolina and Connecticut, have already developed such policies and plans geared toward the use of technology in education in general, not foreign language teaching specifically.

Florida's "School Year 2000 Initiative" is an innovative plan for redesigning the concept and methodology of education. It focuses on a learner-centered approach to education utilizing all types of technology. In its effort to implement technology-based models of schooling, Florida has funded five model technology schools. These schools integrate technology into the daily lesson plans for their foreign language classes. John I. Leonard High School offers foreign language software on a local area network for the students' easy access. A limited number of classroom computers are also available for advanced or remedial study.

South Carolina is in the process of developing a state technology plan. In the meantime, many schools are integrating various types of technology and programs into their foreign language curriculum. For example, Blackville Middle School uses a video and computer program, "Se Habla Espanol," in their Spanish classes. Conway High School is working with interactive video among other types of technology in the foreign language classroom. An audio hook-up between York Comprehensive School and a school in France allows

students at both schools to converse periodically in French. Also, approximately 40 high schools in the state receive instruction in Russian and Japanese via satellite through the Satellite Educational Resources Consortium (SERC). These are just a few examples of the uses of technology in foreign language education in South Carolina.

Connecticut has focused its technology policies on telecommunications. The State Department of Education, along with Connecticut Public Broadcasting, operates a two-channel Instructional Television Fixed Service (ITFS) system. Throughout the state, many local districts are using innovative technology in foreign language classrooms. For instance, the Glastonbury Public Schools offer a distance learning program in Russian through a local cable company. Using a grant from a local company, the South Windsor Public Schools have implemented an international pen pal program via electronic mail.

Many other states have similar policies for utilizing technology in education, although very few have made specific statements on the use of technology in foreign language education. Universities, however, are developing policies for the use of technology in foreign language education. Institutions of higher education such as, Massachusetts Institute of Technology and the University of Iowa are developing foreign language courseware and software programs. The process of integrating technology into the foreign language classroom has begun, not only working with the existing technology, but expanding it and molding it to meet the needs of foreign language learners.

Innovative Language Learning Technologies

Interactive Audio

In recent years, audio programs have been developed with interactive capacity. Interactive audio programs provide individualized listening comprehension and speaking practice for students. Students can speak into a microphone attached to a tape recorder which is controlled by the computer. They can record their own responses to previously recorded questions or practice pronunciation by listening to a native speaker and then repeating the same word or phrase.

Compact disks (CD) which use digitized sound offer quick random access to information as well as superior sound quality. (Garret, 1991) The most recent version of the Macintosh computer comes equipped with built-in digitized speech and recording capabilities. Many new programs now being written for the Macintosh, which are based on programs such as Hypercard, have the capacity for interactive audio built in. (Jones, 1990) In such programs, students are able to hear the pronunciation of a phrase, a word, or even a syllable or sound and then record their own voice following the example. The students may then listen to the original recording as well as their own and compare the two. They

can record their own voices again and compare the two until they feel their pronunciation is correct.

While digitized sound is far superior to tape recorded sound, the space needed to store digitized sound is relatively large. However, continuing advances in CD-ROM (Compact Disk-Read Only Memory) technology will alleviate the space limitations. (Garret, 1991)

Interactive Video

With the advent of commercial video tape players, the use of video in the classroom came onto the scene as a flexible and innovative pedagogical tool. Celluloid film strips and movies were replaced by low-maintenance video tape which also offered easy accessibility to various parts of the video as well as high-quality sound and graphics. Today, interactive video (IAV) represents the state of the art in educational video technology. While the technology for IAV has been around for sometime, it is slowly gaining acceptance in the classroom.

In IAV programs, the computer controls the action of the video tape or the laser videodisc. With video tape, the computer controls the fast forward and rewind functions. The video is marked electronically at periodic intervals which allows the computer to rewind or fast forward to the desired segment of the video. (Willetts, 1990)

A similar process is used for laser videodiscs, but with laser discs, the jump from one segment to the next is almost instantaneous. A laser videodisc is the size of a record album with the metallic appearance of a CD. Videodiscs are better than video tape for lengthy IAV programs because of their ability to move quickly from scene to scene on the disc.

An IAV program allows student interaction with the scenes of the video. Students see a portion of video followed by questions which they answer using the keyboard or a touch screen monitor. The questions can be presented in text on the computer screen or by using the computer's audio capabilities. The accompanying audio is usually in the target language. IAV program activities range from multiple choice questions about the video to real-life simulations.

Simulations provide the most innovative advance in IAV technology. In a simulation, the students assume the role of a character in the video. Throughout the video the students are given real-life situations to which they must respond in the target language. These situations may be random episodes of real-life tasks, or the student may be given the task to live the life of the native speaker for a day, as is the case in the IAV program "A la rencontre de Philippe" developed at MIT. (Murray, 1990) For each scene, the student is given options to choose from, such as whether to go to work or go to the park. According

to the choice of the student, the computer responds in kind. This type of program allows each student to have a unique experience with the program.

Computers

In this age of computer technology, the computer is almost as necessary in education as is the textbook and the teacher. In recent years, the idea that the computer was useful only for teaching math and science has lost ground; computer-assisted instruction (CAI) has become increasingly accepted into the humanities. English and the social sciences have made great strides with CAI, while foreign language instruction is just beginning to reap its benefits. With the greater accessibility of computers to foreign language teachers, new and innovative ways to integrate the computer into foreign language education are being developed.

In the recent past, most programs developed for computer-assisted language learning (CALL) were basic drill and practice programs which focused on vocabulary or discrete grammar points. Today, while there is still a plethora of drill and practice type programs on the market, an increasing number of innovative and interactive programs are being developed. Simulation programs like the "Ticket" series by Bluelion Software and "Recuerdos de Madrid" from D.C. Heath publishers offer real-life simulations in which students learn about culture in addition to learning grammar. Information programs like PC Globe allow students to conduct research in the target language. Games like the French version of "Where in the World is Carmen Sandiego?" by Broderbund Software provide an entertaining environment for students to learn culture and the target language through problem-solving and competition. Writing assistants like "Arandu Escritor" by Arandu Software and "Systeme-D" by Heinle and Heinle publishers (Davis, 1992; Garrett, 1991) aid students in target language compositions by offering help in grammar and style, verb conjugation and use, etc. (Willetts, 1990)

Finally, authoring programs offer the greatest innovation for CALL. These programs give teachers the opportunity to create simple or elaborate software programs which their own material and are geared to their own lesson plans. (Garrett, 1991; Willetts, 1990) They range from simple template programs to more complicated authoring languages. "Toolbook" by Asymetrix (Davis, 1992) and "Hypercard" by Apple (Garrett, 1991) are authoring systems which allow for multimedia capabilities as well as less complicated authoring possibilities.

Computer Networks

Not only do individual programs offer new possibilities for teaching and learning a foreign language, but computers linked together in a network are also expanding the way we teach and learn a foreign language. Using local area networks (LAN), teachers are creating new activities for students which provide more time and experience with the target language.

With some LAN set-ups, students and teachers can communicate back and forth in real time; students can engage in cooperative writing exercises; and teachers can observe students' activities and progress, and make comments to individual students from a teacher station similar to that found in an audio lab. (Willetts, 1990)

Like LANs, long distance networks allow students to communicate with each other in the target language, however, long distance networks also facilitate communication with students throughout the United States and abroad. Communication abroad allows for direct interaction with native speakers. "Minitel" allows student to correspond in french with native speakers in France. (Krause, 1989) Computers can communicate across thousands of miles via modems and phone lines using telecommunications software. Programs like "ICONS" out of the University of Maryland allow students to participate in a simulation game with other students throughout the world using up to six specified languages. Long distance networks allow for real use of the target language which results in reinforcement of classroom learning.

Long Distance Learning

In an age when our world is shrinking, and more people have contact with speakers of other languages, the need to learn a foreign language is on the rise. Distance learning provides instruction to students, who, because of distance, time, or financial constraints, do not have access to specific language courses. Networks like the Satellite Educational Resources Consortium (SERC) offer long distance interactive programs for high schools in many curriculum areas including foreign languages. There are currently seven K-12 satellite-based networks that have received funding from the U.S. Department of Education's Star Schools program. Many similar state-wide and region-wide distance education programs exist using satellites, cable and telephone links.

The Satellite Communications for Learning (SCOLA) provides 24-hour broadcasts of foreign news and information. High speed data can be received on other frequencies which can be picked up by computers connected to the satellite signal. Vocabulary, discussion topics and quizzes are just some of the information that are included in this high speed data. An English translation of the programs can also be printed out from the computer. (Krause, 1989)

Distance learning involves the use of satellite communication or cable television service and, minimally, a television, VCR and telephone speakerphone. These systems are usually one-way video, two-way audio, serving many geographically dispersed sites with a single teacher. Other distance learning environments serving schools relatively close to one another are set up so that the teacher can also see and hear the students (two-way video, two-way audio). In these environments, the number of classes that are linked together is usually limited to five or six, allowing not only the teacher to see the students in each classroom but the students to see one another. In both types of environments, the

appropriate materials, books, handouts, etc. are sent out ahead of time, and the students' assignments are communicated back and forth via regular mail, electronic mail or FAX. (U.S. Office of Technology Assessment, 1989)

Distance learning is one of the fastest growing technologies in foreign language teaching because it affords schools the opportunity to offer instruction in many different languages that are otherwise unavailable or too expensive to offer. Students of less commonly taught languages, such as Chinese and Japanese, benefit greatly from the opportunity that distance learning provides. One must understand that offering foreign language education via satellite does not replace foreign language teachers but rather increases the number of schools offering more foreign languages.

Multimedia

While many of the new technologies utilize various media, the term "multimedia" refers to an intricate relationship among the various types of technology. Multimedia may include video, stills/slides (photographs scanned into the computer), animation, speech, sound, text, etc. A multimedia workstation may include a computer with a motion graphics card and a sound card, audio recording and playback capabilities, headsets for listening and recording, a videodisc player for interactive video, and a monitor which supports motion video. (Davis, 1992)

Courseware for multimedia utilizes diverse combinations of the various technologies. Authoring tools such as "Toolbook" by Asymetrix and "Hypercard" by Apple allow teachers to create their own multimedia applications. These tools allow the computer to manipulate different programs, media and hardware at the same time. Teachers can put to use new technologies which can record audio and video directly onto a hard drive. These applications may be enhanced by a camera, such as the Canon Xapshot, which takes high resolution photographs onto a special floppy disk which can then be imported into a multimedia presentation. The Institute for Academic Technology (IAT), which researches and develops multimedia applications for academic use, has developed a program for French which integrates motion video, speech, and "Systeme-D" (for text and exercises). Smith College creates its own multimedia applications using various commercially available and internally produced products. (Davis, 1992)

These innovative technologies are changing the way we teach and learn a foreign language. Fueled by the recent advances in technology, old technologies have been endowed with interactive capacity and new technologies have been born. We are moving from the audio labs to multimedia resource centers. Students can see and hear authentic video from around the world via satellite. They can communicate in the target language through long distance computer networks. Teachers can create their own multimedia tasks and tests

using an authoring program on the computer. They can conduct cooperative and interactive writing exercises on a local area network. As the field of technology continues to break new ground, the use of technology in foreign language education grows proportionately. Current innovations in foreign language educational technology are not only providing exciting new ways to teach and learn languages, they are also preparing the way for future developments in the field.

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